

REMARKS

Claims 1-8 are presented for examination. Claim 5 has been found allowable subject to being rewritten in independent form. In response, claim 5 has been rewritten in independent form. New claim 9 has been added to further define the claimed invention.

Claims 1, 6, 7 and 8 have been rejected under U.S.C. § 102 as being anticipated by Radko (U.S. Patent No. 5,687,392).

It is noted that the Office Action is defective because it does not provide reasons for rejecting claims 2-4. These claims are mentioned after the rejection of claims 1, 6, 7 and 8.

The rejection of record is respectfully traversed for the following reasons.

Anticipation, under 35 U.S.C. § 102, requires that each element of a claim in issue be found, either expressly described or under principles of inherency, in a single prior art reference. *Kalman v. Kimberly-Clark Corp.*, 713 F.2d 760, 218 USPQ 781 (Fed. Cir. 1983); *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 9 USPQ2d 1920 (Fed. Cir. 1989) *cert. denied*, 110 S.Ct. 154 (1989). The term "anticipation," in the sense of 35 U.S.C. 102, has acquired the accepted definition meaning "the disclosure in the prior art of a thing substantially identical with the claimed invention." *In re Schaumann*, 572 F.2d 312, 197 USPQ 5 (CCPA 1978). The initial burden of establishing a basis for denying patentability to a claimed invention rests upon the Examiner. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); *In re Thorpe*, 777 F.2d 695, 227 USPQ 964 (Fed. Cir. 1985); *In re Piasecki*, 745 F.2d 1468, 223 USPQ 785 (Fed. Cir. 1984). To satisfy this burden, therefore, each and every element of the claimed invention must be

shown by the Examiner to be disclosed in Radko. Applicant respectfully asserts that the record fails to meet this requirement.

In particular, claim 1 recites a data transfer device which comprises:

- acquisition means for acquiring area information including an area address and area length on the basis of an address of an area table in which plural pieces of said area information are written when an instruction requesting data transfer to specify the address of the area table as destination of requested data transfer is issued,

- transfer information setting means for setting transfer information including an address of transfer source, a transfer data length and an address of transfer destination of data on the basis of said area information of area as transfer destination area,

- judging means for judging whether said transfer destination area and other area form a continuous area where plural areas are consecutive,

- transfer information changing means for changing said transfer information according to said continuous area when it is judged by said judging means that said transfer destination area and other area form said continuous area, and

- data transfer control means for controlling the transfer of data on the basis of said transfer information.

The Examiner does not point out specifically wherein Radko discloses the claimed acquisition means, transfer information setting means, judging means, and transfer information changing means. Instead, the Examiner relies upon FIG. 5 for disclosing judging means, and FIG. 4 for disclosing transfer information changing means.

Considering the reference, Radko discloses a method of transferring data efficiently between an input-output device such as HDD and FDD, and a main memory in the computer system, by means of the DMA transfer.

FIG. 5 is a flow chart showing processing steps for evaluating a user buffer.

Page 4 of the Office Action mentions FIG. 5 in connection with step 510 to "determine whether the selected destination area has assigned to it a continuous area (physical memory region) where plural areas are consecutive. (510, Fig. 5)"

Regarding step 510, Radko describes that the evaluator begins by determining whether the user buffer is mapped to a contiguous physical region of block (step 510) (column 8 lines 2 through 4).

Hence, step 510 of Radko does not expressly disclose the claimed judging means of claim 1 for judging whether said transfer destination area and other area form a continuous area where plural areas are consecutive, or corresponding judging steps of claims 6-8.

In the event the Examiner relied upon inherency without expressly indicating such reliance, the Examiner should be aware that inherency requires certainty, not speculation.

In re Rijckaert, 9 F.3d 1531, 28 USPQ2d 1955 (Fed. Cir. 1993); *In re King*, 801 F.2d 1324, 231 USPQ 136 (Fed. Cir. 1986); *W. L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983); *In re Oelrich*, 666 F.2d 578, 212 USPQ 323 (CCPA 1981); *In re Wilding*, 535 F.2d 631, 190 USPQ 59 (CCPA 1976). To establish inherency, the extrinsic evidence must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by

probability or possibilities. *In re Robertson*, 169 F.3d 743, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999). The Examiner provided no factual basis upon which to conclude that one skilled in the art would recognize that determining whether the user buffer of Radko is mapped to a contiguous physical region of block necessarily includes judging whether the transfer destination area and other area form a continuous area where plural areas are consecutive.

Moreover, as demonstrated below, Radko provides no reason for such a conclusion. Even if the user buffer is interpreted as the transfer destination area, Radko provides no teaching of plural consecutive areas or of other destination area forming a continuous area with the destination area.

In Radko, the user buffers are represented by a first logical user buffer and a second logical user buffer. However, the reference does not suggest that both of them are selected to be a destination. Moreover, one skilled in the art would recognize that the transfer to the first logical user buffer and the transfer to the second logical user buffer are executed separately.

It is also well known to those skilled in the art that the term "mapped" used in step 510 means "relating the logical buffer with the physical memory area." This term does not suggest that the destination area and other area form a continuous area, and does not suggest plural consecutive destination areas. Instead, Radko discloses that logical addresses of the first user buffer 334 are mapped to consecutive physical memory addresses of the memory region 335.

It is respectfully submitted that one skilled in the art would understand that it is not necessary to judge whether a transfer destination area and other consecutive area

form a continuous area in order to determine whether the user buffer is mapped to a contiguous physical region of block.

In addition, it is noted that the word "contiguous" in Step 510 only expresses areas within a block size of 64KB, the size managed per segment, for example. Step 510 describes the relation between addresses of logical buffer and addresses of a physical memory area, but does not describe the relation among plural physical memories. In addition, it does not describe whether a physical memory is an area to which plural areas are connected.

Hence, Radko neither expressly nor inherently discloses the claimed judging means of claim 1 for judging whether said transfer destination area and other area form a continuous area where plural areas are consecutive, or corresponding judging steps of claims 6-8.

Moreover, as discussed above, to establish inherency, the extrinsic evidence must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill.

The Examiner relies upon inherency with respect to the claimed acquisition means, and transfer information setting means. However, she provides no factual basis that the Radko's system necessarily includes acquisition means, and transfer information setting means operating in the manner recited in claim 1, or the corresponding steps of claims 6-8. Accordingly, the Examiner's conclusion of inherency is improper.

As demonstrated above, the rejection of claims 1, 6-8 under 35 U.S.C. § 102 is improper and should be withdrawn.

Moreover, regarding claims 2, 3, and 4, the Examiner asserts that “Radko inherently teaches changing the transfer information if the destination area and the other area are consecutive.”

First, the Examiner’s assertion is respectfully traversed. As discussed above, Radko provides no reason for one skilled in the art to conclude that its arrangement necessarily involves “changing the transfer information if the destination area and the other area are consecutive.” The Examiner has failed to provide any factual basis to support her assertion.

Further, the Examiner has failed to address the features recited in claims 2-4. In particular, claim 2 recites that the transfer information changing means changes the transfer data length of said transfer information to a value obtained by adding the area length of said other area to the transfer data length of said transfer information.

Claim 3 recites that the acquisition means acquires plural pieces of said area information by the lump.

Claim 4 indicates that the data transfer device further comprises arranging means for arranging said pieces of area information acquired by said acquisition means according to increasing order of area address and wherein said judging means judges according to the order of arrangement by said arranging means whether said transfer destination area and other area form said continuous area.

Accordingly, the Examiner has failed to establish a *prima facie* case of anticipation with respect to claims 2-4. It is respectfully submitted that Radko neither expressly nor inherently discloses the subject matter of these claims.

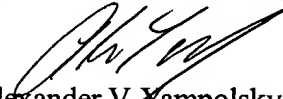
Newly-added claim 9 further defines the claimed subject matter. For example, claim 9 recites, among other features, a judging unit configured to judge whether a transfer destination area and another transfer destination area form a continuous area where plural areas are consecutive, and a transfer information changing unit configured to change the transfer information according to the continuous area when it is judged by said judging means that said transfer destination area and another transfer destination area form the continuous area. As discussed above, Radko does not teach or suggest these features.

In view of the foregoing, and in summary, claims 1-9 are considered to be in condition for allowance. Favorable reconsideration of this application, as amended, is respectfully requested.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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Date: June 15, 2004